

A LIST OF HAWK MOTHS (LEPIDOPTERA: SPHINGIDAE) FROM EAST TIMOR

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Abstract

Records are provided for 36 species of Sphingidae recently collected from East Timor. Eight species, *Acherontia styx* Westwood, *Agrius luctifera* Walker, *Psilogramma casuarinae* Walker, *Acosmeryx anceus* Stoll, *Gnathothlibus eras* (Boisduval), *Hippotion echeclus* Boisduval, *Theretra natashae* Cadiou and *Amphypterus panopus* (Cramer) are newly recorded from East Timor, bringing the total known fauna of Timor to 38 species.

Introduction

Until recently, very little had been published on the hawk moth fauna of East Timor and the island of Timor in general. D'Abrera (1987) listed available specimens held in The Natural History Museum, London, while several authors (Cadiou 1995, Brechlin 1998, 2001, Brechlin *et al.* 2001) have recently described new species from the Lesser Sunda Islands and adjacent areas.

A recent web page dealing with the Sphingidae of southeast Asia (Beck and Kitching 2005) compiled all available data from this region and listed 30 species from the island of Timor. Of those 30 species, we collected 28, plus an additional 8 species, during two periods (from April-November 2002, by MDL while on a United Nations military deployment, and in January 2004, by DAL and MDL) in East Timor. This brings the total number of recorded species to 38, all listed in Table 1. The two species not observed by us were *Cephonodes picus* (Cramer) and *Macroglossum prometheus lineata* Lucas (Beck and Kitching 2005).

Material was collected from the following localities in EAST TIMOR: Memo, 300 m, 9°01'26"S, 125°11'13"E; Balibo, 570 m, 8°58'07"S, 125°02'33"E; Fatuklaran, 730 m, 8°59'26"S, 125°03'10"E; Bobonaro, 1000 m, 9°00'40"S, 125°21'50"E. Reference material is deposited in the authors' collection, Atherton.

Comments

Periods of hawk moth observation during 2002 were mostly of quite limited duration and location, and are presented as a preliminary guide only to the fauna of those areas. Further collecting and observations will undoubtedly increase species numbers for respective areas. Of the eight newly recorded species (indicated by * in Table 1), *Amphypterus panopus* was observed only as a single specimen. *Cephonodes* species were observed several times in the field but, due to difficult terrain, only a single specimen of *C. hylas* was collected. *Psilogramma casuarinae* was previously recorded from northern and eastern Australia and New Guinea (Beck and Kitching 2005).

Table 1. List of hawk moths recorded in East Timor from April-November 2002 and in January 2004. Localities are abbreviated as: Me [Memo], Ba [Balibo], Fa [Fatuklaran] and Bo [Bobonaro]. Months of observation are listed in roman numerals. Nomenclature follows that of Beck and Kitching (2005). * = new record; ** = known from Timor but not recorded during survey.

Species	Locality	Months	Comments
SPHINGINAE			
<i>Acherontia lachesis</i> (Fabricus)	Ba, Bo	i,v,xi	common
<i>Acherontia styx</i> Westwood*	Bo	i	scarce
<i>Agrius convolvuli</i> (Linnaeus)	Me, Ba, Fa, Bo	i,iv,v,vii, xi	common
<i>Agrius luctifera</i> (Walker)*	Bo	i,xi	common
<i>Psilogamma menephron</i> (Cramer)	Fa, Bo	i,iv,xi	common
<i>Psilogamma wetarensis</i> Brechlin	Bo	i,xi	common
<i>Psilogamma casuarinae</i> Walker*	Bo	i	scarce
SMERINTHINAE			
<i>Ambulyx andangi</i> Brechlin	Bo	xi	scarce
<i>Ambulyx moorei</i> Moore	Bo	i,xi	scarce
<i>Clanis euroa</i> Rothschild & Jordan	Fa, Bo	iv,xi	scarce
<i>Marumba timora</i> Rothschild & Jordan	Bo	i,xi	scarce
<i>Polyptychus claudiae</i> Brechlin, Kitching & Cadiou	Bo	i,xi	scarce
<i>Ampliptetus panopus</i> (Cramer)*	Fa	iv	scarce
MACROGLOSSINAE			
<i>Acosmeryx anceus</i> Stoll*	Fa, Bo	i,iv,xi	common
<i>Acosmeryx shervillii</i> Boisduval	Bo	i,xi	scarce
<i>Cephonodes hylas</i> (Linnaeus)	Bo	i	scarce
<i>Cephonodes picus</i> (Cramer)**	Recorded by Beck and Kitching 2005		
<i>Daphnis hypothous hypothous</i> (Cramer)	Fa, Bo	i,iv,xi	common
<i>Daphnis placida</i> (Walker)	Bo	i,xi	common
<i>Gnathothlibus eras</i> (Boisduval)*	Fa, Bo	i,iv,xi	common
<i>Hippotion boerhaviae</i> (Fabricus)	Fa, Bo	i,iv,xi	common
<i>Hippotion celerio</i> (Linnaeus)	Ma, Ba, Bo	i,iv,vi,xi	common
<i>Hippotion echeclus</i> (Boisduval)*	Bo	i	scarce
<i>Hippotion paukstadti</i> Cadiou	Bo	i,xi	common
<i>Hippotion rosetta</i> (Swinhoe)	Bo	i,xi	common
<i>Hippotion velox</i> (Fabricus)	Fa, Bo	i,iv,xi	common
<i>Macroglossum vacillans</i> Walker	Fa, Bo	i,iv,xi	scarce
<i>Macroglossum prometheus lineata</i> Lucas**	Recorded by Beck and Kitching 2005		

Species	Locality	Months	Comments
<i>Pergesa acteus</i> (Cramer)	Bo	i,xi	common
<i>Theretra alecto</i> (Linnaeus)	Bo	i,xi	common
<i>Theretra clotho</i> (Drury)	Fa, Bo	i,iv,xi	common
<i>Theretra incarnata</i> Rothschild & Jordan	Bo	i,xi	scarce
<i>Theretra insignis</i> (Butler)	Bo	i,xi	common
<i>Theretra latreillii lucasii</i> (Walker)	Fa, Bo	i,iv,xi	common
<i>Theretra natashae</i> Cadiou*	Bo	i,xi	common
<i>Theretra nessus</i> (Drury)	Fa, Bo	i,iv,xi	common
<i>Theretra oldenlandiae oldenlandiae</i> (Fabricius)	Bo	i,xi	common
<i>Theretra silhetensis</i> (Walker)	Fa, Ba, Bo	i,iv,v,xi	scarce

In their website, Beck and Kitching (2005) listed *Gnathothlibus eras* and *G. erotus* (Cramer) as separate species, recording *G. eras* from the eastern Indonesian archipelago, New Guinea, Australia and Pacific islands, and *G. erotus* from the western Indonesian archipelago extending into SE Asia, but did not provide characters to support this separation. Males of *G. eras* from East Timor are similar in wing markings to males from Australia, but differ noticeably in leg structure. One of the characters that allows separation of Australian *G. eras* from the endemic *G. australiensis* Lachlan, is a much reduced length and thickness of the long hair scales covering the fore tibia in males of *G. australiensis*, but with much longer and thicker hair scales in males of *G. eras* (Lachlan 2004). Following this character, male specimens of *G. eras* from East Timor appear intermediate between Australian *G. eras* and *G. australiensis*, with quite reduced hair scales, but not as reduced as in *G. australiensis*. Further investigation into the status of Timorese specimens is warranted.

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